

REC Solar founders Judy Ledford Staley and Fred Sisson on the roof of the Costco in San Luis Obispo – one of 25 of the stores where their company has installed solar equipment.

HARNESSING THE SUN

GREEN GRADS USE THEIR LEARN BY DOING EXPERIENCE TO MAKE THEIR MARK IN THE SOLAR INDUSTRY

BY CATHY ENNS

TEMPERATURES OFTEN FELL BELOW ZERO in Ely, Nev., the winter Cal Poly alum Mike Emrich spent measuring air quality for the Environmental Protection Agency.

It was 1973, the height of the oil crisis, and residents were hit especially hard. Food, heating oil and other necessities were trucked in. With his Learn by Doing education in mind, Emrich (B.S., Industrial Technology, 1972) considered the implications of the oil crisis for Ely and for the country.

He noted that eastern Nevada enjoys 345 days of sun each year. “Pow! The light came on,” he said “There’s a way out.”

The flash of innovation launched Emrich into the world of solar power. Twenty years later, two other Cal Poly graduates – Judy Ledford Staley and Fred Sisson – rode a similar train of thought into the world of alternative energy. Today, these alumni are making major impacts in solar power and making

a difference in the world.

Emrich moved back to the Central Coast and founded Solarponics in 1975. Since then, he has expanded and diversified his company. Solarponics now offers a spectrum of energy efficiency solutions: solar electric systems (including do-it-yourself kits); solar water heating systems; radiant heating systems; and wind energy solutions for Central Coast homes and businesses.

Solarponics is the longest continuously owned and operated solar company in California, with more than 3,000 customers.

Experiential learning remains a core value for Emrich. “You’re not learning if you’re not trying new things,” he said — even if occasionally that means you “learn by failing.” Emrich urges his employees to experiment, he said. And he has set up a demonstration center in Atascadero to encourage customers to see and touch solar equipment and learn about energy options.

CHANGING PERCEPTIONS

In 1997, Staley and Sisson felt the solar-power market was ready to take off. Photovoltaic (PV) systems that convert solar energy into electricity were approaching general affordability, the utility industry was about to de-regulate, and the California Energy Commission was preparing to offer rebates on solar system purchases.

Staley, an environmental engineer, and Sisson, a mechanical engineer, combined their skills and founded REC Solar in San Luis Obispo, aiming to make PV systems commonplace.

Staley’s passion for solar drove her to figure out how to start a company from scratch. “Cal Poly taught me how to solve problems,” she said. “I felt I could apply critical thinking principles to any challenge I encountered – like teaching myself accounting. Learn by doing gives you the confidence that you can solve almost any problem.”

The solar industry appealed to Sisson as a place to make a difference in the world by leveraging his interest in all things

new and creative. That’s just what the industry needed, the duo said. They set out to change the market’s perception that solar technology was unreliable and risky. They developed standardized engineering practices, worked on bringing solar components to a cost-effective price point, and provided pre- and post-installation support.

As their company grew, Staley and Sisson hired other Cal Poly grads. Cal Poly students come in a step ahead of grads from most other universities, Sisson said. “Learn by Doing encourages you to play around with things, but in a real way,” he said. “It creates technical common sense.”

Today, the California Energy Commission rates REC Solar one of the leading installation firms in California. The company does business in five other states as well and employs more than 500 people. Its partnership with Costco is testament to Staley and Sisson’s vision: REC Solar equipment is now on the rooftops of 25 Costco stores. □